



July 23, 2021

By Electronic Mail and First Class Mail

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**Re: Drummond ABC Coke Semi-Annual Report No. 1 (January 25-June 30, 2021),
Consent Decree, *United States v. Drummond Company, Inc.* Case No. 2:19-cv-00240-
AKK (N.D. AL January 25, 2021); DJ # 90-5-2-1-10717.**

Gentlepeople:

As required by Section VIII of the Consent Decree entered on January 25, 2021 in *United States v. Drummond, Drummond Company, Inc.* hereby provides EPA and JCDH with the following semi-annual report.

1. Status of Construction or Compliance Measures:

- Drummond has implemented the Leak Detection and Repair Program (“LDRP”) required by Paragraph 16 and set forth in Appendix A, including:
 - Development of the LDRP as required by Appendix A, ¶ 1.
 - Compliance with LDAR monitoring frequencies as described in Appendix A, ¶¶ 4 and 5.
 - Compliance with the repair requirements of Appendix A, ¶¶ 6-14.
 - Implementation of the Delay of Repair (“DOR”) requirements of Appendix A, ¶ 15.

- Development and Implementation of a Management of Change Protocol pursuant to Appendix A, ¶ 16.
 - Data certification by a LDAR monitoring technician as required by Appendix A, ¶ 18.
 - Development and implementation of an LDAR Training protocol as required by Appendix A, ¶ 17.
 - Implementation of the QA/QC requirements set forth in Appendix A, ¶¶ 18-20.
 - Choosing a 3rd party consultant to audit LDAR compliance pursuant to Appendix A, ¶ 21.
 - Completion of the leak detection electronic database and implementation of other record keeping requirements set forth in Appendix A, ¶¶ 30-31 and provisions for reporting set forth in Appendix A, ¶ 32-33, to the extent applicable.
- Before the CD was entered, Drummond began compliance with 40 C.F.R. § 61.132 with respect to the Excess Flushing Liquor Tank.
 - Before the CD was entered, Drummond covered the area where tar crumb exits the tar decanter so that rain will not mix with the solid tar crumb, so as to assure that the crumb contains less than 10% liquid, as required by Paragraph 20. All tar crumb is reintroduced into the coking process.
 - Drummond conducted its first semi-annual OGI-FLIR monitoring required as a SEP under Paragraphs 23-33 on July 6-8, 2021.
 - Before the entry of the CD, Drummond constructed and connected the closed-vent system and control device for the Drain Collection Sump, as required by Paragraph 17.
 - Before the entry of the CD, Drummond constructed and connected the closed-vent system and control device for the Dirty Water Sump, as required by Paragraph 17.
 - Before the entry of the CD, Drummond enclosed and connected the Wilputte Decanter to a closed-vent system and control device, as required by Paragraph 18.
 - Before the entry of the CD, Drummond put in place a management system to monitor compliance and to assure future compliance with all requirements of the CD.
 - On February 3, 2021, Drummond satisfied its penalty obligation to Jefferson County under section 10 of the CD.
 - On February 5, 2021, Drummond satisfied its penalty obligation to the United States under section 7 of the CD.
 - On February 12, 2021, Drummond notified EPA and Jefferson County of its selection of Think Environmental to serve as the LDAR Contractor and PPM Consultants to serve as third party consultant for the LDAR Audits. On February 22, 2021, Drummond submitted PPM's proposal for conducting the independent LDAR audit and again requested the agencies' approval of PPM.
 - On February 25, 2021, Drummond submitted an application to Jefferson County for a federally enforceable, non-Title V air permit incorporating applicable requirements of the CD in accordance with section 22(b) of the CD. Jefferson County issued Permit No. 4-07-0001-005-1 incorporating the CD requirements into Drummond's non-Title V permit on March 15, 2021.

- On February 25, 2021, Drummond applied for a non-Title V Air Permit indicating that the terms of the CD be incorporated, including that the Excess Flushing Liquor Tank is regulated under 40 CFR 61.132 (per paragraph 22.b of the CD). This permit was issued by Jefferson County on March 15, 2021.
- On March 11, 2021, EPA, after review and consultation with Jefferson County, approved the selection of PPM pursuant to paragraph 21 of the CD.
- On April 6, 2021, Drummond submitted a request to Jefferson County that the amendment to the non-Title V air permit be incorporated into its Title V permit.
- On April 22, 2021 a revised Title V Air Permit was issued, as required under Paragraph 22.c, and uploaded to the JCDH website
- On April 24, 2021, Drummond submitted an interim status report to EPA and JCDH setting forth the milestones completed over the first 90 days.
- On April 24, 2021, Drummond submitted a training protocol, in accordance with Section 5, paragraph 15 of Appendix A of the Consent Decree. Drummond reported that it had retained a third-party contractor, Think Environmental, to perform Method 21 monitoring and LDAR database management. Drummond has also trained multiple maintenance and By-Products staff to ensure that a minimum of two employees are qualified and available to perform LDAR and Method 21 duties (A.2d). All LDAR Personnel conducting Method 21 monitoring had completed training by April 25, 2021 and Drummond has ensured that new LDAR Personnel conducting Method 21 monitoring are sufficiently trained prior to their involvement in the LDAR program.
- Drummond submitted its proposed LDRP plan to EPA and Jefferson County for approval under Paragraph 2 of Appendix A of the CD on April 24, 2021.
- On April 24, Drummond reported that Think Environmental, added approximately 10,800 new tags to the By-Products Plant and conducted the first QA/AC review of the Facility's LDAR program pursuant to Paragraph 19 of Appendix A of the CD the LDRP Plan.
- Drummond submitted its proposal for determining the benzene quantity in the Storm Water Overflow Line in accordance with Paragraph 21 of the CD on April 24, 2021
- On May 10, 2021, Drummond submitted a scope of work for the initial independent third party audit of the Facility's compliance with the LDAR requirements in accordance with Paragraphs 22-24 of Appendix A of the CD. PPM conducted that third party audit and prepared the report dated June 22, 2021 (Exhibit 1). Drummond submitted that report to EPA together with the Corrective Action Plan attached hereto as Exhibit 2, on June 22, 2021.
- On June 16, 2021, EPA sent Drummond an email requesting additional information regarding the 90 day status report, the LDRP, the stormwater overflow line calculation proposal on the benzene sampling training program.

- On June 22, 2021 Drummond submitted responses to EPA's June 16, 2021, comments on the LDRP. The responses to the remaining comments are attached hereto as Exhibits 3 and 4.

2. Completion of 180-Day Milestones:

- The Annual Benzene Sampling Training Plan has been prepared and is attached for approval (Exhibit 5).
- Area where tar crumb exits the decanters has been covered.
- Proposed method for determining benzene quantity in Storm Water Line has been prepared and is attached for approval.
- First OGI/FLIR monitoring was conducted on July 6, 2021.
- A third-party LDAR compliance audit was completed on June 23, 2021.
- The Corrective Action Plan prepared in response to the third-party audit was completed on June 25, 2021.
- The LDAR database (Leaders), created before entry of the CD, has been maintained.

3. Problems Encountered or Anticipated In Addressing Any Specific Action Required by the CD Together with Implemented or Proposed Solutions:

- No problems were encountered.

4. Status of Permit Applications:

- On February 25, 2021, Drummond applied for a non-Title V Air Permit indicating that the terms of the CD be incorporated, including that the Excess Flushing Liquor Tank is regulated under 40 CFR 61.132 (per paragraph 22.b of the CD). This permit was issued by Jefferson County on March 15, 2021.
- On April 6, 2021, Drummond submitted a request to Jefferson County that the amendment to the non-Title V air permit be incorporated into its Title V permit.
- On April 21, 2021 a revised Title V Air Permit was issued, as required under Paragraph 22.c, and uploaded to the JCDH website

5. Rain events Necessitating Bypass to the Storm Water Tank:

- The Emergency Stormwater Overflow Line was not used and no stormwater was directed to the Stormwater Tank.

6. Annual TAB Calculation for the Facility:

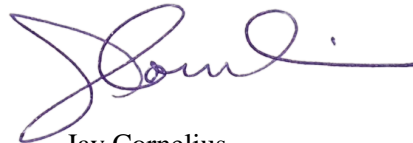
- See Exhibit 6.

7. Operation and Maintenance Issues or Malfunctions, Including a Summary of Representative Operating Conditions.

- There were no operation and maintenance issues or malfunctions.
8. **SEP Progress and Activities, Including Description of Activities Undertaken, Status of Any Construction or Compliance Measures, Including the Completion of Any Milestones, and Summary of Costs Incurred Since Previous Report:**
- The first of four semi-annual OGI/FLIR surveys was conducted by Think Environmental on July 6-7, 2021. The results of that survey are attached as Exhibit 7. Each OGI survey is estimated to cost \$5,000.
9. **Any Non-Compliance with the CD Requirements Explanation of the Violation's Likely Cause and Remedial Steps Taken, or to be Taken, to Prevent or Minimize Such Violation:**
- Drummond was in compliance with the CD requirements.
10. **LDAR Compliance Status:**
- The LDAR Compliance Status Report for this period is attached hereto as Exhibit 8.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Very truly yours,



Jay Cornelius
Manager, Environmental Control
Drummond Company, Inc.

cc: Robert Caplan
EES Case Management Unit, eescdcopy.enrd@usdoj.gov
Wade Merritt
Jason Howanitz
Nikki Rieck
Blake Andrews
Curt Jones
Robert B. McKinstry, Jr.

Exhibit 1

June 22, 2021 LDRP Third Party Audit Report



LEAK DETECTION AND REPAIR (LDAR) THIRD-PARTY AUDIT

**ABC COKE
900 HUNTSVILLE AVENUE
TARRANT, ALABAMA 35217**

PPM PROJECT NO. 40032404

JUNE 22, 2021



**LEAK DETECTION AND REPAIR (LDAR)
THIRD-PARTY AUDIT**

FOR

**ABC COKE
900 HUNTSVILLE AVENUE
TARRANT, ALABAMA 35217**

PPM PROJECT NO. 40032404

JUNE 23, 2021

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1.0 INTRODUCTION

On January 25, 2021 Drummond Company, Inc. (Drummond), doing business as ABC Coke (ABC), entered into a Consent Decree (CD) with the United States Environmental Protection Agency (EPA) and the Jefferson County Board of Health (JCBH). According to paragraph 16 of the CD, Drummond is required to implement and comply with all of the requirements of a Leak Detection and Repair (LDAR) program as listed in appendix A.

Listed within the LDAR requirements of Appendix A includes provisions for ABC to undergo a third-party audit of their LDAR program within 180 days of the effective date (Jan 25, 2021) of the CD (Appendix A, paragraph 22 [A.22]). Additionally, the CD requires a second LDAR audit two calendar years following the initial audit, to occur within the same calendar quarter that the initial LDAR audit completion date occurred.

PPM Consultants, Inc. (PPM) was retained by ABC to conduct the initial third-party audit of the LDAR Program at the ABC Coke Facility located in Tarrant, Alabama. PPM performed the initial third-party audit from May 10 through May 21, 2021. Details of the third-party LDAR audit that are contained within this report include this introduction, executive summary, audit elements, and audit findings and recommendations.

The objective of this audit was to assess the compliance status of the facility in relation to LDAR requirements in its Title V Major Source Operating Permit and underlying local, state, and federal LDAR regulations, as well as compliance with the CD. The scope of the review was limited to ABC Coke's Byproducts unit and its compliance with LDAR requirements during the previous two-year period, May 6, 2019, through May 7, 2021. The scope of the review also included LDAR records and databases maintained by ABC Coke's third-party LDAR contractor, Think Environmental.

2.0 EXECUTIVE SUMMARY

Based on the results of the audit, it was concluded that while ABC Coke demonstrated substantial compliance with many of its LDAR requirements, certain minor areas for improvement exist. A total of 5 findings were noted based on the audit results, as well as an additional 6 recommendations. The term "Finding" is used to describe a circumstance or matter where the facility did not effectively demonstrate that a compliance requirement was met. The term "Recommendation" is used to describe a circumstance where compliance was not an issue, but where an item or condition was identified which could improve an existing compliance process or procedure.

The initial third-party LDAR audit scope was prescribed in Appendix A, Paragraph 23 of the CD. The main aspects of the audit, which are discussed below in Sections 3.1 through 3.5, include:

- A Regulatory Compliance Review;
- A Field Review;
- Comparative Monitoring;
- A Records and Database Review; and
- Procedure Review.

.Details and specific evidence for each finding are included in **Appendix A - Audit Findings**. Details concerning each recommendation are included in **Section 4.0**

3.0 AUDIT ELEMENTS

The initial third-party LDAR audit scope was prescribed in Appendix A, Paragraph 23 of the CD. The main aspects of the audit, which are discussed below in Sections 3.1 through 3.5, include:

- A Regulatory Compliance Review;
- A Field Review;
- Comparative Monitoring;
- A Records and Database Review; and
- Observations of Monitoring Technicians.

The specific elements required in a third-party LDAR audit covered during the audit included:

- A review of compliance with all applicable LDAR regulations including the additional requirements of the CD;
- Verification that equipment was monitored at the appropriate frequency;
- A field review to verify that each component in benzene service is clearly identified (i.e. tagged) and tagging is properly maintained;
- Verification that proper documentation and sign-offs have been recorded for all LDAR applicable equipment that are placed on the DOR list;
- A review to ensure that repairs have been performed in the required periods;
- A review of technician monitoring data and equipment counts for feasibility and unusual trends;
- Verification that proper calibration records and monitoring instrument maintenance information are maintained;
- Verification that other LDAR program records are maintained as required;
- Observations of LDAR monitoring technicians who conduct Method 21 leak detection monitoring to ensure that monitoring is being conducted in accordance with Method 21 requirements;
- Reviewing whether any pieces of equipment that are required to be in the LDAR program are not included;
- Performing comparative monitoring, according to the A.14 of the CD, to assess the effectiveness of ABC's LDAR program; and
- A review of LDAR records and reports submitted.

3.1 REGULATORY COMPLIANCE REVIEW

Based on its Title V Major Source Operating Permit and the additional requirements within the CD, ABC Coke has identified the following regulations with LDAR elements that apply to the facility:

- Title 40 Code of Federal Regulations (40 CFR) Part 61, Subpart L – National Emissions Standards for Benzene Emissions from Coke By-Product Recovery Plants
- 40 CFR Part 61, Subpart V – National Emission Standards for Equipment Leaks (Fugitive Emission Sources)
- 40 CFR Part 61, Subpart FF – National Emission Standards for Benzene Waste Operations
- Jefferson County Department of Health (JCDH) Air Pollution Control Rule and Regulations, Chapter 8.26 – Leaks from Coke By-Product Recovery Plant Equipment

Furthermore, ABC's CD had additional monitoring and frequency requirements which are more stringent than the above federal and state regulations. PPM conducted a review of the requirements of these regulations and the CD and compared these requirements against ABC Coke's current LDAR program to assess whether any potential compliance gaps exist. This review includes the requirements of A.23.a from the CD. Findings and Recommendations resulting from this regulatory review are included in **Section 4.0** and details on the findings in **Appendix A - Audit Findings**.

Based on the review of the LDAR database and the LDAR program, there were no regulatory findings identified.

3.2 FIELD REVIEW

PPM conducted a field survey of equipment within ABC Coke's Byproducts unit to assess the following aspects of the LDAR program:

- Verifying that regulated equipment is properly tagged
 - Verifying equipment that appears to be in volatile hazardous air pollutant (VHAP) service is included in the LDAR Database
 - Verifying equipment included in the LDAR Database is field tagged
 - Assessing whether any unregulated equipment (unregulated component types or equipment not in VHAP service) is tagged.
- Verifying that open-ended lines (OELs) are properly double-blocked or equipped with plugs.
- Verifying that components designated as difficult to monitor (DTM) or unsafe to monitor (UTM) meet applicable criteria for designation
- Observing technicians from Think Environmental to ensure proper Method 21 monitoring and calibration procedures are followed.

The field review meets the CD requirements of A.19.b, A.19.h, and A.23.c. PPM identified three findings and five recommendations based on their field review which are summarized in **Section 4.0** and details of the findings are presented in **Appendix A - Audit Findings**.

3.3 COMPARATIVE MONITORING

PPM conducted a survey of leak concentrations on components in ABC Coke's Byproduct unit. PPM personnel surveyed a total of 6,033 components (representing a total of 50.7% of components at the facility) using EPA Reference Method 21. Instruments used during this survey were a Thermo Fisher Scientific Toxic Vapor Analyzer (TVA) 1000B, and Archer 2 handheld data loggers. This equipment setup was specifically chosen to replicate the equipment that the normal Method 21 monitoring technicians use at ABC.

PPM evaluated leaks based on the most stringent leak definition from the CD of 500 parts per million, by volume (ppmv) for all equipment types. Based on this leak definition, PPM identified 13 leaking components, 11 of which are connectors and two of which were valves. The total number of components monitored was 6,033 which is approximately 50.7% of the total components within the LDAR program. This meets the comparative monitoring audit requirement of A.24.b. **Table 3-1 – Comparative Monitoring Results** summarizes the results in terms of leak percentages and an audit multiple, for the facility as a whole and the individual equipment types which were monitored. Note that for this initial third-party LDAR audit, comparative monitoring of OELs is not required due to the unavailability of Historical, Average leak percentages for OELs as per A.24.e.

Table 3-1 – Comparative Monitoring (CM) Results

Component Category	Total Count¹	Facility Leak Percentage	CM Leaks Found	Audit Leak Percentage	Audit Multiple
Facility Wide	11,896	0.049%	13	0.215%	4.4
<i>Valves</i>	<i>1,995</i>	<i>0.017%</i>	<i>1</i>	<i>0.194%</i>	<i>11.4</i>
<i>Pumps</i>	<i>49</i>	<i>1.075%</i>	<i>0</i>	<i>0.000%</i>	<i>0.0</i>
<i>Connectors²</i>	<i>9,820</i>	<i>0.100%</i>	<i>11</i>	<i>0.221%</i>	<i>2.2</i>

- 1) The total counts listed only included normal-to-monitor components in the LDAR program.
- 2) The full addition of connectors into the LDAR program did not occur until the finalization of the CD. Therefore, the most recent counts and leak percentage from April 2021 were used.

Based on the leaks found during the comparative monitoring campaign, PPM calculated a Comparative Monitoring Audit Leak Definition Percentage and compared this percentage to that of data collected by Think Environmental from January 2020 – January 2021. Note that due to the addition of connectors to the LDAR program in 2021, PPM used the most recent connector monitoring data which included all of the added connectors to serve as the facility leak percentage in the comparison. The Audit Leak Definition Percentage was calculated per the methodology contained in ABC Coke's CD. Based on this methodology, the "Comparative Monitoring Leak Ratio" was calculated to be 4.4 for all component types, 11.4 for valves, 0.0 for pumps, and 2.2 for connectors.

As per A.25.b, comparative monitoring is considered a finding if the Comparative Monitoring Leak Ratio and the Comparative Monitoring Audit Leak Percentage are greater than or equal to 1.0 percent. Based on the results in Table 3-1, the comparative monitoring results are not considered a finding. Details of the Comparative Monitoring assessment are included in **Appendix B – Comparative Monitoring Results**.

3.4 RECORDS AND DATABASE REVIEW

PPM reviewed LDAR records and reports provided by ABC Coke and Think Environmental. This review consisted of the following elements:

- Verifying equipment is being monitored at the required frequency
- Verifying that records of leaks, including repair records, are maintained
- Verifying that monitoring instrument calibration records are maintained
- Verifying LDAR technicians and plant staff are properly trained per the enhanced LDAR procedures

- Verifying that required reports are being submitted to regulatory agencies and that all required information is included in these reports
- Assessing the monitoring records for feasibility (i.e. speed of monitoring)
- Reviewing LDAR database for other irregularities that could signify issues (e.g. high percentage of DTM/UTM components)

PPM identified two findings associated with the records review. Findings and Recommendations resulting from this records review are included in **Section 4.0** and details of the findings in **Appendix A - Audit Findings**.

3.5 PROCEDURE REVIEW

PPM reviewed ABC Coke's existing Enhanced LDAR Procedures document (prepared by PPM June 26, 2017) and interviewed ABC and Think Environmental staff to understand how LDAR procedures are implemented and followed to maintain compliance with applicable LDAR regulations. These interviews focused mainly on Management of Change (MOC) procedures, personnel training procedures, and the process for assessing whether all regulated equipment is included in the LDAR program.

PPM identified one recommendation associated with the procedure review. Findings and Recommendations resulting from the review and interviews are included in **Section 4.0** and details of the findings in **Appendix A - Audit Findings**.

4.0 FINDINGS AND AREAS OF CONCERN

Based on PPM's audit of ABC Coke's LDAR program, a summary of findings and recommendations is presented below. Additional details regarding the findings are included in **Appendix A - Audit Findings**.

Table 4-1 – Findings and Recommendations

Item	Program Element	Summary
Finding #1	Field Review	Five Open-Ended Lines (OELs) were observed.
Finding #2	Field Review	Three Audio, Visual, or Olfactory (AVO) leaks were observed.
Finding #3	Tagging	16 components were identified as missing tags and not in LDAR database.

Item	Program Element	Summary
Finding #4	Quality Assurance	Monitoring occurred for one day by two monitoring technicians (2/22/21) that did not include the required technician certification statement as per A.18. Recordkeeping started on March 24, 2021.
Finding #5	Training	ABC Coke does not have LDAR training records on annual training relevant to their duties for By-Products staff who perform repair attempts and LDAR maintenance.
Recommendation #1	Calibration	Calibration procedures should be improved to ensure consistent calibration results and expedite the calibration time.
Recommendation #2	Calibration	If frequent monitoring (>1x month) occurs, recommend only performing standard calibration procedures and not precision calibrations each time.
Recommendation #3	Observations	Some monitoring orifices were missed upon technician observations due to short service employees. Ensure new employees are properly trained and receive follow-up instruction.
Recommendation #4	Tagging	Connectors are tagged in database as .1, .2, .3 etc. If a leak is found then ABC has to remonitor the whole cluster to confirm which one is which. Also, if descriptions are not detailed enough, this may create future issues with ensuring that the correct connector was monitored for repair verifications.
Recommendation #5	Tagging	ABC had several spots where components that were unable to be reached (i.e. not Normal-To-Monitor) had tags all grouped together as "Cluster Tagging." These cluster tags made it unable to verify which components were in the database and if there were any missing from the database. Recommend affixing tags at the component rather than on a nearby handrail or other close proximity areas.
Recommendation #6	MOC	No MOC procedures have been needed since the Effective Date of the CD. ABC to ensure that MOC practices are in place to accurately track the review process for any new or removed equipment.

APPENDICES

APPENDIX A – AUDIT FINDINGS

Appendix A
2021 Leak Detection and Repair Compliance Audit Findings
Drummond Company, Inc. - ABC Coke
Birmingham, AL

Finding No.	Type	Regulatory Citation	Finding
1	Regulatory	40 CFR §60.482-6(a)(1): Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482-1(c) and paragraphs (d) and (e) of this section.	During comparative monitoring and walkthrough of the By-Products unit, a total of five open ended lines were observed as not having a cap, plug, or blind flange.
2	Concent Decree	Appendix A, Paragraph 14: For all Covered Equipment, at any time, including periods between required periodic monitoring, for which evidence of a potential leak is detected through audio, visual, or olfactory sensing, Drummond shall comply with all applicable LDAR regulations as if repair is required pursuant to Paragraph 6 of this Appendix A.	During comparative monitoring and walkthrough of the By-Products unit, a total of three audio, visual, or olfactory leaks were observed. One was an olfactory leak and two were visual leaks.
3	Concent Decree	Appendix A, Paragraph 23.b: Reviewing and/or verifying, as applicable, the same items that are required to be reviewed and/or verified in Paragraphs 19-20 of this Appendix A; Appendix A, Paragraph 19.b: Verify that each Covered Equipment in benzene service is clearly identified (i.e. tagged) and tagging is properly maintained. Appendix A, Paragraph 23.c: Reviewing whether any pieces of equipment that are required to be in the LDAR program are not included.	During a walkthrough of the By-Products unit, 16 components were identified as missing tags and not in LDAR database. This included five (5) valves, and 11 flanges.
4	Concent Decree	Appendix A, Paragraph 19: Beginning no later than the Effective Date, on each Day that monitoring occurs, at the end of such monitoring, Drummond shall ensure that each monitoring technician certifies that the data collected accurately represent the monitoring performed for that day by requiring the monitoring technician to sign a form that includes the following certification: "On [insert date], I reviewed the monitoring data that I collected today and to the best of my knowledge and belief, the data accurately represent the monitoring that I performed today."	Monitoring occurred for one day by two monitoring technicians (2/22/21) that did not include the required technician certification statement as per A.18. Recordkeeping started on March 24, 2021.
5	Concent Decree	By no later than 90 days after the Effective Date, Drummond shall have developed a training protocol (or, as applicable, require its contractor to develop a training protocol for the contractor's employees) and shall ensure that all LDAR Personnel conducting Method 21 monitoring have completed training on all aspects of LDAR, including this LDRP, that are relevant to the person's duties. Once per calendar year, starting in the calendar year after completion of initial training, Drummond shall ensure that refresher training is performed with respect to each employee or contractor; provided, however, that refresher training is not required if an individual's employment at the Facility ceases prior to the end of the calendar year or no longer involves duties relevant to LDAR. Drummond shall also ensure (or, as applicable, require its contractor to ensure for the contractor's employees) that new LDAR Personnel conducting Method 21 monitoring are sufficiently trained prior to any involvement (other than supervised involvement for purposes of training) in the LDAR program.	ABC Coke does not have LDAR training records on annual training relevant to their duties for By-Products staff who perform repair attempts and LDAR maintenance.

APPENDIX B – COMPARATIVE MONITORING RESULTS

ABC Coke - Birmingham, AL
Comparative Monitoring Analysis

Facility Data	Leaks > 500 ppm									
	# of Leaks		# Monitored		# of Leaks		# Monitored		# of Leaks	
	2Q20	2Q21	2Q20	3Q20	4Q20	1Q21	4Q20	1Q21	2Q20	1Q21
COKE	0	1,516	0	1,524	1	1,566	0.00%	1,533	0.00%	0.13%
Valves	0	1,455	0	1,484	0	1,505	0.00%	1,461	0.00%	0.07%
Connectors	0	2	0	2	0	2	0.00%	1	0.00%	0.00%
Pumps	0	47	0	46	1	45	0.00%	48	0.00%	2.08%

Comparative Monitoring Data	# Monitored	# Leaks >500 ppm	Average Monitored
COKE	6,033	13	11,896
Valves	1,033	2	1,471
Connectors	4,977	11	10,029
Pumps	24	0	51
	6,033	13	

Note: The full set of connectors were added to the database in 2Q21. The average monitored is from the most recent data.

Statistical Measure	Comparative Monitoring Calculations				Facility Calculations			
	COKE	Valves	Connectors	Pumps	COKE	Valves	Connectors	Pumps
sample mean, \bar{x}	0.215%	0.194%	0.221%	0.000%	0.049%	0.017%	0.100%	1.075%
std dev, $s^{[1]}$	0.001	0.000	0.000	0.012	0.001	0.000	0.000	0.012
# of leak rates	1	1	1	1	4	4	4	4
CL (+/-)	1.106	1.106	1.106	1.106	1.106	1.106	1.106	1.106
Upper CL	0.003	0.002	0.003	0.014	0.001	0.000	0.000	0.018
Lower CL	0.001	0.002	0.002	-0.014	0.000	0.000	0.001	0.004
X-Values:	1.1	2.1	3.1	4.1	1	2	3	4
Multiples	4.4	11.4	2.2	0.0				

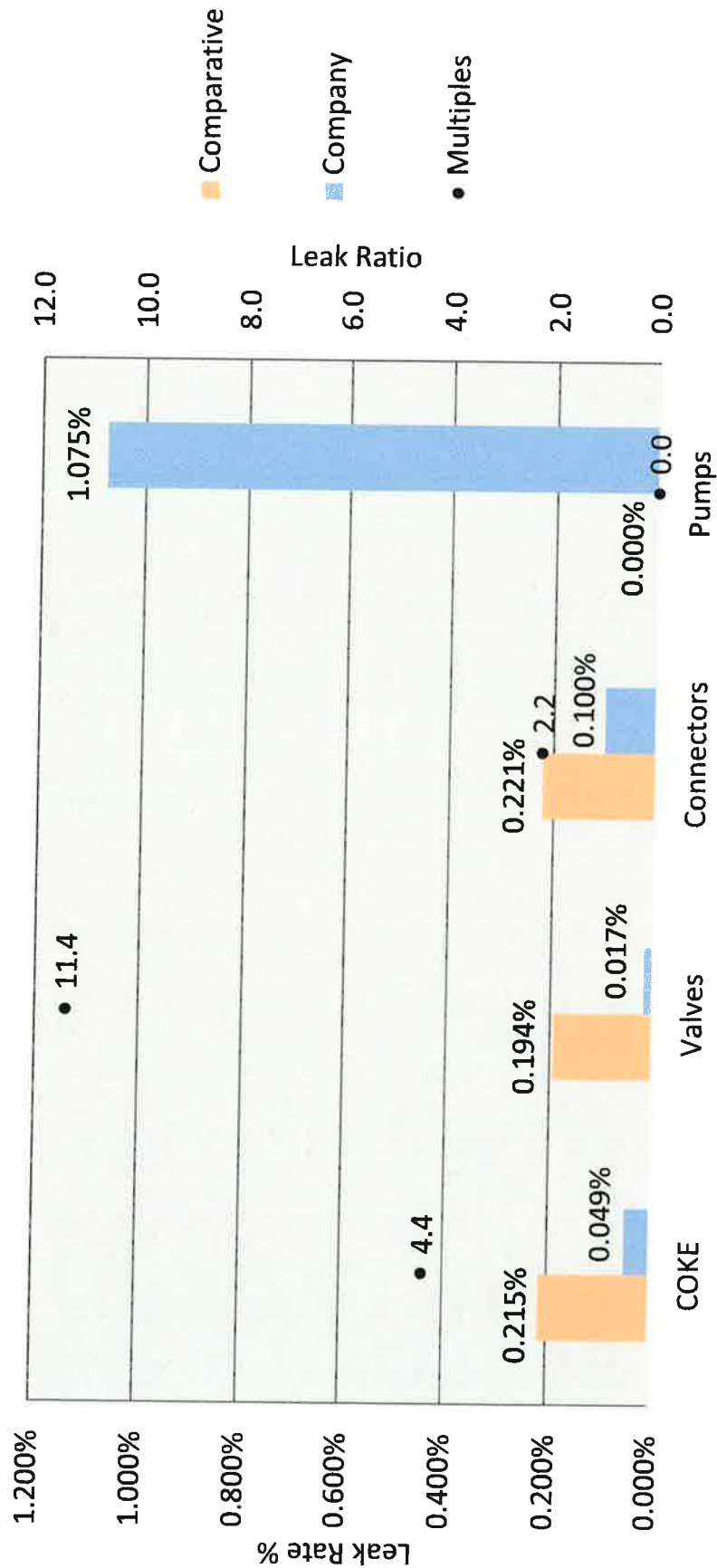
Notes:

- [1] The standard deviation calculated from the company leak data is applied to both the company data and the comparative monitoring data to calculate the confidence interval.
 [2] t represents the test statistic, which approaches the value 1.106 as the degrees of freedom of a given population increases greater than 100.

Confidence Limit Equations
 Upper CL = $\bar{x} + 1.106 * \text{standard deviation} / \sqrt{\text{\# of leak rates}}$
 Lower CL = $\bar{x} - 1.106 * \text{standard deviation} / \sqrt{\text{\# of leak rates}}$

ABC Coke - Birmingham, AL
Initial LDAR CD Third-Part Audit
Comparative Monitoring Comparison Table

LDAR Leak Rate Comparison Table
500-ppm Leak Definition, 95% Confidence Interval



ANALYZER PERFORMANCE TEST FORM

Operator : Job Burrtram
 Date : 5/10/2021
 Location : ABC Coke
 Analyzer Model : TVA-1000
 Analyzer Serial/ID Number : 05228 12847
 Calibration Gas Mixture : Methane / Air



Analyzer Inlet Flowrate (lpm): _____

Calibration Precision Test

* Ambient Air
Background

Trial	Calibration Gas Concentration (ppm)							
	Measured Zero Air ¹ (ppm)	Measured Calibration Gas (ppm)	Measured Zero Air ¹ (ppm)	Measured Calibration Gas (ppm)	Measured Zero Air ¹ (ppm)	Measured Calibration Gas (ppm)	Measured Zero Air ¹ (ppm)	Measured Calibration Gas (ppm)
1	1.07	9	2.7	507	1.04	10100		
2	2.57	9	2.76	486	2.97	10600		
3	0.127	9	0.36	476	2.96	10500		
Avg Algebraic Difference ²								
Calibration Precision ³ (%)								

¹ Alternate using zero and calibration gas throughout procedure.

² Avg Algebraic Difference = $[\sum_{\text{Trial } 1, 2, 3} (\text{Measured Gas Reading} - \text{Calibration Gas Conc})] / 3$

³ Calibration Precision = $(\text{Avg Algebraic Difference} / \text{Calibration Gas Conc}) * 100$

Calibration Precision required to be within $\pm 10\%$

Response Time Test

Trial	90% of Calibration Gas Concentration (ppm)			
	0	492	9931	
	90% Response Time ¹	90% Response Time ¹	90% Response Time ¹	90% Response Time ¹
1	17	8	4	
2	15	5	5	
3	5	5	5	
Average ²	12.3	6	4.67	

¹ Alternate using zero and calibration gas throughout procedure.

² Average required to be < 30 seconds

Operator Signature : _____

ANALYZER PERFORMANCE TEST FORM

Operator : Brandon Williams
 Date : 5-10-21
 Location : ABC Lake
 Analyzer Model : TVA1000
 Analyzer Serial/ID Number : 0115249419
 Calibration Gas Mixture : Methane/Air



Analyzer Inlet Flowrate (lpm): _____

Calibration Precision Test

* Ambient Air -
Background

Trial	Calibration Gas Concentration (ppm)							
	0		492		9931			
	Measured Zero Air ¹ (ppm)	Measured Calibration Gas (ppm)	Measured Zero Air ¹ (ppm)	Measured Calibration Gas (ppm)	Measured Zero Air ¹ (ppm)	Measured Calibration Gas (ppm)	Measured Zero Air ¹ (ppm)	Measured Calibration Gas (ppm)
1	0.25	2	1.15	571	0.85	9692		
2	0.75	2	0.88	507	1.17	9650		
3	0.66	2	0.73	575	1.11	9712		
Avg Algebraic Difference ²								
Calibration Precision ³ (%)								

¹ Alternate using zero and calibration gas throughout procedure.

² Avg Algebraic Difference = $[\sum_{\text{Trial } 1, 2, 3} (\text{Measured Gas Reading} - \text{Calibration Gas Conc})] / 3$

³ Calibration Precision = $(\text{Avg Algebraic Difference} / \text{Calibration Gas Conc}) * 100$

Calibration Precision required to be within $\pm 10\%$

Response Time Test

Trial	90% of Calibration Gas Concentration (ppm)			
	0	492	9931	
	90% Response Time ¹	90% Response Time ¹	90% Response Time ¹	90% Response Time ¹
1	2	5	4	
2	6	4	5	
3	5	6	4	
Average ²	4.33	5	4.33	

¹ Alternate using zero and calibration gas throughout procedure.

² Average required to be < 30 seconds

Operator Signature : Brandon Williams

ANALYZER PERFORMANCE TEST FORM

Operator : Brandon Bass
 Date : 5/12/2021
 Location : ABC Coke
 Analyzer Model : TVA-1000
 Analyzer Serial/ID Number : 0411405983
 Calibration Gas Mixture : Methane / Air
 Analyzer Inlet Flowrate (lpm): 1.3



Calibration Precision Test

Trial	Calibration Gas Concentration (ppm)							
	0		492		993			
	Measured Zero Air ¹ (ppm)	Measured Calibration Gas (ppm)	Measured Zero Air ¹ (ppm)	Measured Calibration Gas (ppm)	Measured Zero Air ¹ (ppm)	Measured Calibration Gas (ppm)	Measured Zero Air ¹ (ppm)	Measured Calibration Gas (ppm)
1	0.49	5	0.61	524	0.44	930		
2	0.59	5	0.56	499	0.51	9400		
3	0.60	5	0.02	517	0.37	9700		
Avg Algebraic Difference ²								
Calibration Precision ³ (%)								

¹ Alternate using zero and calibration gas throughout procedure.

² Avg Algebraic Difference = $[\sum_{\text{Trial } 1, 2, 3} (\text{Measured Gas Reading} - \text{Calibration Gas Conc})] / 3$

³ Calibration Precision = $(\text{Avg Algebraic Difference} / \text{Calibration Gas Conc}) * 100$

Calibration Precision required to be within $\pm 10\%$

Response Time Test

Trial	90% of Calibration Gas Concentration (ppm)			
	0	492	993	
	90% Response Time ¹	90% Response Time ¹	90% Response Time ¹	90% Response Time ¹
1	8	9	11.6	
2	5	4	5	
3	5	6	5	
Average ²				

¹ Alternate using zero and calibration gas throughout procedure.

² Average required to be < 30 seconds

Operator Signature : _____

ANALYZER DAILY CALIBRATION FORM

Operator : Jeb Buttram
 Operator Signature : _____
 Location : _____
 Analyzer Model : ABC COLE
 Analyzer Serial Number : TVA-1000
 Quarterly Certification Date : 05/28/2018
 Calibration Gas Mixture : N/A
Methane / Air

Daily Procedures:

Date : 5/10/23
 Time Analyzer Turned On : 9:00
 Time Analyzer Flame Lit : 9:12
 Probe Inlet Flow Rate (lpm) : _____

Check Box if Investigated and Acceptable:

- ☒ Battery Adequately Charged
- ☒ Sufficient Hydrogen Supply
- ☒ Trap/Filter(s) Checked
- ☒ Connections Secure
- ☒ Flame Arrestor Present
- ☒ Qualitative Leak Check Passed

Calibration

Date	Calibration Gas Concentration (ppm)	Calibration Gas Expiration Date	5-10-23			5-11-23			5-12-23		
			Calibration Check (ppm)	Calibration Assessment (ppm)	Calibration Drift Assessment % (Limit < -10%)	Calibration Check (ppm)	Calibration Assessment (ppm)	Calibration Drift Assessment % (Limit < -10%)	Calibration Check (ppm)	Calibration Assessment (ppm)	Calibration Drift Assessment % (Limit < -10%)
	0	3/12/23	Morning 12.45	Mid-day 0.30	End-of-day 5.15	Morning 0.30	Mid-day 0.87	End-of-day 1.41	Morning 0.27	Mid-day 0.20	End-of-day 0.37
	492	3/3/23	Morning 463	Mid-day 463	End-of-day 463	Morning 495	Mid-day 448	End-of-day 468	Morning 491	Mid-day 452	End-of-day 454
	9931	3/5/23	Morning 9900	Mid-day 9900	End-of-day 9900	Morning 9900	Mid-day 9405	End-of-day 9409	Morning 9900	Mid-day 9700	End-of-day 10200

Date	Calibration Gas Concentration (ppm)	Calibration Gas Expiration Date	5-13-23			5-14-23		
			Calibration Check (ppm)	Calibration Assessment (ppm)	Calibration Drift Assessment % (Limit < -10%)	Calibration Check (ppm)	Calibration Assessment (ppm)	Calibration Drift Assessment % (Limit < -10%)
	0	3-12-23	Morning 0.29	Mid-day 1.12	End-of-day 1.47	Morning 0.30	Mid-day 1.90	End-of-day 2.24
	492	3-3-23	Morning 538	Mid-day 487	End-of-day 534	Morning 481	Mid-day 466	End-of-day 485
	9931	3-5-23	Morning 9909	Mid-day 9555	End-of-day 9900	Morning 9900	Mid-day 9150	End-of-day 9674

1 % Calibration Drift =

$$100 \times \frac{(\text{Cal Drift Assessment} - \text{Calibration Check})}{(\text{Cal Drift Assessment})}$$



5-14-21
 7:50
 8:10
 1.1

5-13-21
 8:00
 8:15
 1.1

5-12-21
 8:00
 8:15
 1.1



ANALYZER DAILY CALIBRATION FORM



Operator :
Operator Signature :
Location :
Analyzer Model :
Analyzer Serial Number :
Quarterly Certification Date :
Calibration Gas Mixture :

Seb Buntam
ARC CMC

Daily Procedures:

Date :
Time Analyzer Turned On :
Time Analyzer Flame Lit :
Probe Inlet Flow Rate (lpm) :

5-17-21
7:15
7:20
1.1

5-18-21
7:05
7:40
1.1

5-19-21
7:00
7:24
1.1

5-20-21
7:15
7:30
1.1

5-21-21
7:15
7:30
1.1

Check Box if Investigated and Acceptable:

- Battery Adequately Charged
- Sufficient Hydrogen Supply
- Trap/Filler(s) Checked
- Connections Secure
- Flame Arrestor Present
- Qualitative Leak Check Passed

☒ ☒ ☒ ☒ ☒ ☒

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Calibration

Date	Calibration Gas Concentration (ppm)	Calibration Gas Expiration Date	5-17-21			5-18-21			5-19-21		
			Calibration Check (ppm)		Calibration Drift Assessment (ppm)	Calibration Check (ppm)		Calibration Drift Assessment (ppm)	Calibration Check (ppm)		Calibration Drift Assessment (ppm)
			Morning	Mid-day		Morning	Mid-day		Morning	Mid-day	
492			816	151	239	500	101	0.64	7160	1215	150-131
9431			495	445	448	485	450		487	483	442
			9100	9100	9150	9820	9790		9905	10000	9814

Date	Calibration Gas Concentration (ppm)	Calibration Gas Expiration Date	5-20-21			5-21-21		
			Calibration Check (ppm)		Calibration Drift Assessment (ppm)	Calibration Check (ppm)		Calibration Drift Assessment (ppm)
			Morning	Mid-day		Morning	Mid-day	
492			936	509	929	0.41	0.31	
494			494	469	488	461	465	
9431			9300	9100	9200	9220	9319	

1 % Calibration Drift =

$$100 \cdot \frac{(\text{Cal Drift Assessment} - \text{Calibration Check})}{(\text{Cal Drift Assessment})}$$

ANALYZER DAILY CALIBRATION FORM

Operator : Brandon Williams
 Operator Signature : Brandon Williams
 Location : ABC Coke
 Analyzer Model : TVA 1000
 Analyzer Serial Number : 0115249419
 Quarterly Certification Date : N/A
 Calibration Gas Mixture : Methane / Air



Daily Procedures:

Date : 5-10-21 5-11-21 5-12-21 5-13-21 5-14-21
 Time Analyzer Turned On : 9:00 8:00 8:00 8:00 7:55
 Time Analyzer Flame Lit : 9:10 8:30 8:15 8:15 8:10
 Probe Inlet Flow Rate (lpm) : 1.6 1.6 1.6 1.8 1.8

Check Box if Investigated and Acceptable:

- Battery Adequately Charged
- Sufficient Hydrogen Supply
- Trap/Filter(s) Checked
- Connections Secure
- Flame Arrestor Present
- Qualitative Leak Check Passed

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Calibration

Date	Calibration Gas Concentration (ppm)	Calibration Gas Expiration Date	5-10-21				5-11-21				5-12-21			
			Calibration Check (ppm)		Calibration Drift Assessment (ppm)		Calibration Check (ppm)		Calibration Drift Assessment (ppm)		Calibration Check (ppm)		Calibration Drift Assessment (ppm)	
			Morning	Mid-day	End-of-day	Calibration Drift Assessment % (Limit < 10%)	Morning	Mid-day	End-of-day	Calibration Drift Assessment % (Limit < 10%)	Morning	Mid-day	End-of-day	Calibration Drift Assessment % (Limit < 10%)
0	5-12-23	0.21		0.01			0.32	0.13	0.15		0.38	0.19	0.28	
492	5-3-23	535		472			440	436	483		505	472	485	
9931	3-5-23	9998		9533			9470	9371	9403		9381	9073	9681	

Date	Calibration Gas Concentration (ppm)	Calibration Gas Expiration Date	5-13-21				5-14-21			
			Calibration Check (ppm)		Calibration Drift Assessment (ppm)		Calibration Check (ppm)		Calibration Drift Assessment (ppm)	
			Morning	Mid-day	End-of-day	Calibration Drift Assessment % (Limit < 10%)	Morning	Mid-day	End-of-day	Calibration Drift Assessment % (Limit < 10%)
0	5-12-23	0.31		0.34			0.21	0.34	0.35	
492	5-3-23	473		462			461	464	460	
9931	3-5-23	9784		9600			9201	9271	9153	

% Calibration Drift =

$$100 \cdot \frac{(\text{Cal Drift Assessment} - \text{Calibration Check})}{(\text{Cal Drift Assessment})}$$

ANALYZER DAILY CALIBRATION FORM

Operator : Brandon Williams
 Operator Signature : [Signature]
 Location : ABC Coke
 Analyzer Model : THA1000
 Analyzer Serial Number : 0115249419
 Quarterly Certification Date : NA
 Calibration Gas Mixture : methane/Air



Daily Procedures:

Date : 5-17-21
 Time Analyzer Turned On : 7:15
 Time Analyzer Flame Lit : 7:20
 Probe Inlet Flow Rate (lpm) : 1.9

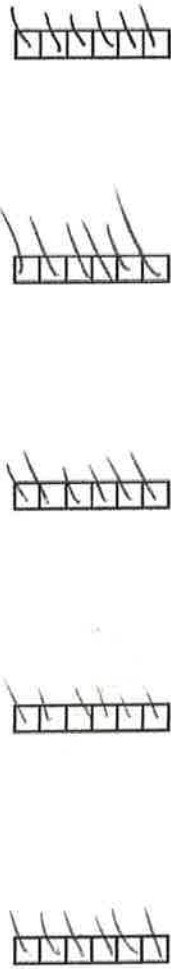
5-19-21
7:05
7:15
1.6

5-20-21
7:00
7:15
1.8

5-21-21
7:15
7:30
1.8

Check Box if Investigated and Acceptable:

- Battery Adequately Charged
- Sufficient Hydrogen Supply
- Trap/Filter(s) Checked
- Connections Secure
- Flame Arrestor Present
- Qualitative Leak Check Passed



Calibration

Date	Calibration Gas Concentration (ppm)	Calibration Gas Expiration Date	5-17-21			5-18-21			5-19-21		
			Calibration Check (ppm)	Calibration Assessment (ppm)	Calibration Drift Assessment % (Limit < -10%)	Calibration Check (ppm)	Calibration Assessment (ppm)	Calibration Drift Assessment % (Limit < -10%)	Calibration Check (ppm)	Calibration Assessment (ppm)	Calibration Drift Assessment % (Limit < -10%)
			Morning	Mid-day	End-of-day	Morning	Mid-day	End-of-day	Morning	Mid-day	End-of-day
0			0.35	0.41	0.39	0.46	0.45	0.43	0.40	0.45	0.34
492			481	511	474	491	477	481	487	491	483
9931			9798	9734	9707	9600	9407	9856	9836	9798	9833

Date	Calibration Gas Concentration (ppm)	Calibration Gas Expiration Date	5-20-21			5-21-21		
			Calibration Check (ppm)	Calibration Assessment (ppm)	Calibration Drift Assessment % (Limit < -10%)	Calibration Check (ppm)	Calibration Assessment (ppm)	Calibration Drift Assessment % (Limit < -10%)
			Morning	Mid-day	End-of-day	Morning	Mid-day	End-of-day
0			6.40	0.37	0.43	0.40	0.39	
492			482	487	454	486	479	
9931			9875	9842	9872	9900	9884	

¹ % Calibration Drift =

100 - (Cal Drift Assessment - Calibration Check)
 (Cal Drift Assessment)

Operator : Brandon Bass
Operator Signature : [Signature]
Location : ARC Coke
Analyzer Model : TVA - 1000
Analyzer Serial Number : 04114059833
Quarterly Certification Date : 5/12/2001
Calibration Gas Mixture : Matheson Air

Calibration Gas Mixture :



Probe Inlet Flow Rate (lpm):

<u>5/12</u>	<u>5/13</u>	<u>5/14</u>
8:00am	7:55am	7:57
8:03am	8:02am	7:58
<u>1.6</u>	<u>1.4</u>	<u>1.3</u>

Battery Adequately Charged
Sufficient Hydrogen Supply
Trap/Filter(s) Checked
Connections Secure
Flame Arrestor Present
Qualitative Leak Check Passed

Date		Wed 5/12				Thur 5/13				Fri 5/14			
Calibration Gas Concentration (ppm)	Calibration Gas Expiration Date	Calibration Check (ppm)		Calibration Assessment (ppm)		Calibration Drift Assessment % (%)		Calibration Drift Assessment % (ppm)		Calibration Check (ppm)		Calibration Drift Assessment % (%)	
		Morning	Mid-day	Mid-day	End-of-day	Mid-day	End-of-day	Mid-day	End-of-day	Morning	Mid-day	Mid-day	End-of-day
0	3/12/23	0.44	0.47	1.46		0.13	0.41			0.17	0.12	0.17	
492	3/3/23	524	457	513		491	503	482		484	472	512	
9931	3/5/23	9200	10500	9900		10300	9951	9710		10200	10200	9500	

1 % Calibration Drift =

100 • (Cal Drift Assessment - Calibration Check)
(Cal Drift Assessment)

[illegible]

This July 2021 Biannual Report submittal does not include the entirety of PPM's Audit Report

Available upon request are:

27 pages of Comparative Monitoring Data and

74 pages of LDAR Monitoring Field Inspection Records

Exhibit 2

June 22, 2021 LDRP Corrective Action Plan



June 22, 2021

By Electronic Mail

Air Enforcement Branch Chief
US Environmental Protection Agency Region 4
Air Enforcement Branch
61 Forsyth Street S.W.
Atlanta, Georgia 30303

Jonathan Stanton, P.E.
Director, Environmental Health Services
Jefferson County Department of Health
1400 Sixth Avenue South
Birmingham, AL 35233

Re: Drummond ABC Coke – LDAR Corrective Action Plan – Consent Decree, *United States v. Drummond Company, Inc.* Case No. 2:19-cv-00240-AKK (N.D. AL January 25, 2021); DJ # 90-5-2-1-10717.

Gentlepeople:

On June 23, 2021, Drummond received the Leak Detection and Repair (LDAR) Third-Party Audit Report prepared by PPM Environmental Consultants, Inc. Their audit, conducted from May 10 through May 21, 2021, found five (5) minor items that warranted corrective action. These findings, along with Drummond's proposed/implemented corrective actions are as follows:

1. During comparative monitoring and walkthrough of the By-Products unit, a total of five open-ended lines were observed as not having a cap, plug, or blind flange.

Corrective Action: The five open-ended lines were capped immediately.

2. During comparative monitoring and walkthrough of the By-Products unit, a total of three audio, visual, or olfactory leaks were observed. One was an olfactory leak and two were visual leaks.

Corrective Action: The three AVO leaks were repaired immediately.

3. During a walkthrough of the By-Products unit, 16 components were identified as missing tags and not in LDAR database. This included five (5) valves, and 11 flanges.

Corrective Action: The LDAR contractor tagged the components and added them to the LDAR database.

4. Monitoring occurred for one day by two monitoring technicians (2/22/21) that did not include the required technician certification statement as per A.18. Recordkeeping started on March 24, 2021.

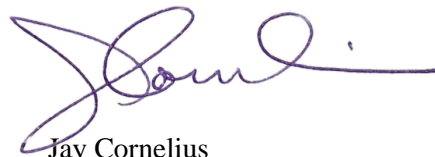
Corrective Action: The LDAR contractor and technicians have been instructed to properly certify all monitoring results. After each monitoring event, the technician completes a certification form, turns it in to Drummond's Environmental Coordinator who adds these forms to the LDAR records.

5. ABC Coke does not have LDAR training records on annual training relevant to their duties for By-Products staff who perform repair attempts and LDAR maintenance.

Corrective Action: Drummond has implemented annual LDAR training for By-Products staff and documentation of this training is included in the LDAR records.

While these corrective actions were fairly straightforward, Drummond is confident that their implementation has improved our LDAR Program. Please let me know if there are any questions or if additional information is needed.

Very truly yours,



Jay Cornelius
Manager, Environmental Control
Drummond Company, Inc.

cc: Robert Caplan (USEPA)
EES Case Management Unit, eescdcopy.enrd@usdoj.gov
Steve Rieck (USEPA)
Nicole Radford (USEPA)
Andrew Ingersoll (DOJ)
Wade Merritt (JCDH)
Jason Howanitz (JCDH)
Richard Davis (Drummond)
Blake Andrews (Drummond)
Curt Jones (Drummond)
Robert B. McKinstry, Jr. (Drummond)

Exhibit 3

Response to Comments on Method for Calculating TAB for Stormwater Overflow Tank

After review of Drummond's 90-day Status Report, the USEPA requested further clarification of the proposed method for calculating the benzene concentration in stormwater that may be directed to the Stormwater Tank (T-102) via the Emergency Stormwater Overflow Line. This method was developed so in the event the emergency line is ever used, the benzene in the stormwater can be calculated and incorporated into Drummond's TAB summary. The following are the USEPA's comments on benzene calculations and Drummond's responses (in bold):

1. For the attachment labeled "BP Stormwater Liquor Ratio," please provide the following information:
 - a. Provide a description and relevant calculations for how the ~9.3 ppm benzene at 0 inches rainfall was determined. Sampling taken during the 2011 NEIC inspection and information included in Drummond's 2012 response to EPA's information request indicate a higher concentration for the influent to the ammonia still.
The correct assumed concentration of benzene in flushing liquor with no dilution (0" of rainfall) should be 15 ppm based on sample analysis of an undiluted flushing liquor sample collected in December 2018. This corrected value has been included in the overflow TAB calculation.
 - b. How will inches of rainfall be determined?
Drummond monitors weather via an onsite Vantage Pro 2 weather station (by Davis Instruments). A datalogger records and graphs meteorological data every 15 minutes, which Drummond can access through the WeatherLink program. To determine the inches of rainfall to be used in the overflow TAB calculation, Drummond will refer to the cumulative rainfall amounts logged from the start of rainfall to the time the overflow valve is closed.
 - c. How will total gallons through the stormwater overflow be determined?
Drummond will calculate total gallons of overflow by multiplying the maximum flow rate to the stormwater tank (established to be 15 gallons/minute) and the minutes of overflow recorded.
 - d. Can a flow meter or other tool be installed to accurately measure water pumped through the stormwater overflow line?
A flow meter was considered as an alternative for measuring flow, and may still be installed in the future, but since these overflow events are rare, Drummond opted to use existing equipment to measure rainfall amount and calculate benzene concentrations in the overflow using known surface areas, tank/piping capacities, and dilution factors.
2. Using a hypothetical storm event, please provide a step-by-step Total Annual Benzene calculation.
Example TAB Calculation for Overflow: A storm event with 6.2" of rainfall required opening of the overflow valve for 390 minutes. The TAB (Mg/yr) for this Stormwater Overflow Event will be calculated as follows:

1. Calculate Total Gallons sent to Stormwater Tank

$$\text{Flow Rate (gpm)} \times \text{Minutes of ByPass (min)} = 15 \text{ gpm} \times 390 \text{ min} = 5,850 \text{ gal}$$

2. Calculate Annual Waste Quantity

$$\begin{aligned} \text{Total Gallons sent to SW Tank (gal)} \times \text{Liquid Density of Flushing Liquor} \left(\frac{\text{kg}}{\text{L}} \right) \times \text{CF (gal to L)} \\ = 5,850 \text{ gal} \times 1 \text{ kg/L} \times 3.7854 = 22,145 \text{ kg} \end{aligned}$$

3. Calculate Concentration of Benzene in Stormwater Overflow

$$\begin{aligned} [\text{Benzene}] (\text{ppm}) \times \left(1 - \frac{\text{Rainfall (in)} / 12 \times (\text{BP Surface Area (sf)} \times \text{CF (sf to gal)})}{\text{Rainfall (in)} / 12 \times (\text{BP Surface Area (sf)} \times \text{CF (sf to gal)}) + \text{Liquor Storage (gal)}} \right) \\ = 15 \text{ ppm} \times \left(1 - \frac{\left(\frac{6.2 \text{ in}}{12} \right) \times (71,084 \text{ sf} \times 7.4805)}{\frac{6.2 \text{ in}}{12} \times (71,084 \text{ sf} \times 7.4805) + 85,441 \text{ gal}} \right) = 3.558 \text{ ppmw} \end{aligned}$$

4. Calculate TAB for Stormwater Overflow

$$\begin{aligned} \text{Annual Waste Quantity (kg)} \times \text{Benzene in SW (ppmw)} \times \text{CF (ppm to Mg)} \\ = 22,145 \text{ kg} \times 3.558 \text{ ppm} \times 0.000000001 = 0.0000788 \text{ Mg/yr} \end{aligned}$$

Note: CF = Conversion Factor

3. How will Drummond determine the benzene concentrations in the T-102 stormwater tank, if an overflow event take place?

In the event that stormwater overflows into the T-102 tank, Drummond will determine benzene concentrations in the tank by collecting a grab benzene water sample from the tank within 48 hours of the overflow event.

4. Will infrequent use of the overflow line cause any maintenance issues?
The overflow line is not expected to present any maintenance issues.

Exhibit 4

Response to Comments on Benzene Sampling Training

Before the entry of the CD, Drummond developed the annual Benzene Sampling Training Program (BSTP) required by Paragraph 12 and Appendix A and implemented it upon approval. Since the Effective Date, the BSTP has been updated to address content requested in the USEPA's June 16, 2021 comments, which are included below along with Drummond's responses (in bold):

1. *The EPA would like to see more detail in the training program, including:*
 - a. *When will training occur?*
Training will be completed prior to samplers collecting samples and supervisors will review sampling protocols to ensure proper procedures are being practiced.
 - b. *Will the training include hands-on field exercise?*
Yes. Supervisors will demonstrate and then monitor the trainee as they collect the benzene samples.
 - c. *Will the training include an overview of Method 5021A?*
Yes.
 - d. *Include a map/description of where sampling will exactly take place.*
A map of the sampling location has been added to the training material.
2. *The EPA is concerned that the program does not include discussion of regulatory sampling requirements found in 40 C.F.R. § 63.355(c)(3). Please ensure the following requirements are included in the program:*
 - a. *The program indicates use of 2 vials for sampling, however § 63.355(c)(3)(i) requires a minimum of 3 samples for each waste stream.*
The program has been updated to require three (3) 40-ml vials for each benzene sample.
 - b. *The program does not include a discussion on the use of a cooling coil, required by § 63.355(c)(3)(ii)(F).*
A discussion of a cooling coil has been included in the BSTP.
 - c. *The training must include a discussion of all relevant items found in § 63.355(c)(3)(ii)(A) – (H).*
The relevant information has been added to the BSTP, along with updated training materials (see attached).

Exhibit 5

Benzene Sampling Training Plan/Presentation

Benzene Sampling Training

ABC Coke By-Products Plant

This information is to be used to train ABC Coke and contractor personnel tasked with collecting benzene samples from ABC Coke By-Products Plant. Annual refresher training will be conducted and the names and dates of participants kept on file in the ABC Lab and Environmental Department. Annual training is held each year.

Sampling Instructions

Sample Location: Ammonia Still Effluent

PPE Requirements: Hardhat, safety glasses, steel-toed shoes, work gloves and fire-resistant outer wear

Materials Needed: Sample containers (three 40 ml vials per sample), nitrile gloves, clock, cooler of ice water with pump and Benzene Sampling Logbook.

1. Sample containers are pre-labeled, 40 mL volatile organic analyte (VOA) vials pre-preserved with a hydrochloric acid solution.
2. Use a pump and cooler with ice water to chill the cooling coil. After purging four volumes from the cooling coil, check temperature of sample at the sample port. Sample must be below 10°C before collection. Once temperature is reached, fill the VOA vials, making sure there are no air bubbles (zero headspace) per EPA Method 5021A.
3. Write the Sample ID, collection date and time on the sample labels in indelible ink (Sharpie) and in the Benzene Sampling Logbook.
4. Rubber band VOA vials together and place in iced cooler and carry directly to ABC Coke's onsite laboratory.
5. Complete the chain of custody, verify that the date and times are correct and the information on labels match the chain of custody and sample log.
6. The **Project ID** is the sample location ("Ammonia Still" and the **Sample ID** is "Ammonia Still Effluent"
7. Place samples in the lab fridge to keep sample temperature below 10°C and put chain of custody in clipboard for outside pickup by LRS.

Benzene Sampling Training Program

ABC Coke Div. Drummond Co Inc.

Established April 2021



Training Objectives

- Identify benzene sampling location at the **Ammonia Still Effluent**
- Learn required personal protective equipment (PPE)
- Learn materials needed for sample collection
- Review proper sampling methods
- Know sampling frequency

Map of Sample Site



Required PPE for Sample Collection

- Hardhat
- Steel-Toed Safety Shoes
- Safety Glasses
- Work Gloves
- Nitrile Over Gloves
- Fire-resistant Outer Wear (“Blues”)



Material Needed to Sample

- Sample cooler with ice
- Pump and cooler with ice water for cooling coils
- Three (3) pre-labeled 40 ml vials, pre-preserved with HCl (provided by lab).
- Benzene Sampling Log Book
- Indelible pen
- Thermometer to measure Sample Temperature
- Clock to note Sample Time

Sampling Methods

- **Method 5021A**
 - Volatile Organic Compounds in Various Matrices Using Equilibrium Headspace analysis
- **40 CFR 63.355(c)(3)(i)**
 - Test Methods, Procedures, and Compliance Provisions

Method 5021A

“8.2 Water samples - Fill the 40-mL vial and, according to the analyte list to be analyzed, chemically preserve the sample (Sec. 7.8) as necessary. Ensure that there is **no headspace in the vial and seal it**. At least two* vials should be collected per sample and more may be necessary for duplicate and MS/MSD analyses, if desired. Transfer of the sample into a headspace vial and the addition of the matrix modifier and standards should be performed at the laboratory.”

**ABC uses three (3) pre-preserved vials for each sample.*

Sampling procedures from 40 CFR 63.355(c)(3)(i)

- Samples shall be **collected prior to the waste being exposed to the atmosphere** in order to minimize the loss of benzene prior to sampling.
- Prior to the initiation of sampling, sample lines and cooling coil shall be purged with **at least four volumes** of waste.
- After purging, the sample flow shall be directed to a sample container and the tip of the sampling tube shall be kept below the surface of the waste during sampling to **minimize contact with the atmosphere**.
- Samples shall be collected at a flow rate such that the cooling coil is able to maintain a waste temperature **less than 10 °C (50 °F)**.
- After filling, the sample container shall be **capped immediately (within 5 seconds)** to leave a **minimum headspace** in the container.
- The **sample containers shall immediately be cooled** and maintained at a temperature below 10 °C (50 °F) for transfer to the laboratory.

Steps for Collecting Sample

Step 1

Gather Materials / PPE

Step 2

Set up at Sampling Location



Step 3

Purge / Check Temperature of Cooling Coils

- Purge cooling coil with at least four volumes of waste (volume of cooling chamber x 4).
- Check sample temperature as it exits cooling coil. Sample temperature must be below 50°F (10°C).



Step 4

Collect Sample Per Method 5021A.

- Samples shall be collected prior to the waste being exposed to the atmosphere in order to minimize the loss of benzene in the sample.
- Write the Sample ID, Sample Collection Date/Time on the sample labels in indelible ink (Sharpie) and in the Benzene Sampling Logbook.
- Sample ID is “**Ammonia Still Effluent**”
- Vials should be filled with **no headspace** and capped within **5 seconds** of the sample being taken.
- Vials are pre-preserved with hydrochloric acid (HCl), and cannot be reused if spilled. Use new vial for each sample aliquot.



Step 5

Chill & Transport to ABC Lab

- Wrap three VOA vials together with rubber band and place in cooler with ice. Carry samples directly to ABC Coke's laboratory.



Step 6

Complete Chain of Custody

- Project ID is “Ammonia Still”
- Date Results Needed is “STD” for standard turn-around time.
- Sample ID is “Ammonia Still Effluent”
- Matrix is “WW” for waste water
- Sample Date and Time are from sample label and Sample Log. Make sure the information on chain of custody, labels, and log all match
- Number of Containers is “3”
- Analysis is “Benzene E624.1 (Three 40-mL VOA vials, HCl Perserved)”



Step 7

Place Samples in Fridge for Pickup

- Transfer samples from cooler to the refrigerator in lab to keep sample temperature below 10°C
- Put chain of custody in clipboard for outside pickup by contract laboratory (LRS).
- After pick-up, place copy of COC on file.



Sample Frequency

- ABC is **required** to collect a sample from the Ammonia Still once per month



Questions?

Exhibit 6

Annual TAB Calculation

Assigned Value
for BMDL
0.0000

From LRS Web

Annual Waste Quantity - 40 CFR 61.355(a)(1)

Flow-Weighted Annual Average Concentration - 40 CFR 61.355(a)(3)(v)

$$\bar{C} = \frac{1}{Q_t} \times \sum_{i=1}^n (Q_i)(C_i)$$

\bar{C} = Flow-weighted annual average benzene concentration for waste stream, ppmw.

Q_t = Total annual waste quantity for waste stream, kg/yr (lb/yr).

n = Number of waste samples (at least 3).

Q_i = Annual waste quantity for waste stream represented by C_i , kg/yr (lb/yr).

C_i = Measured concentration of benzene in waste sample i , ppmw.

Annual Benzene Quantity = Annual Waste Quantity x Flow-Weighted Annual Average Concentration - 40 CFR 61.355(a)(1)

Density of Ammonia Still is assumed to be density of Water (1 Kg/L)

§ 61.355 Test methods, procedures, and compliance provisions

(a) An owner or operator shall determine the total annual benzene quantity (TAB) from facility waste by the following procedure:

(1) For each waste stream subject to this subpart having a flow-weighted annual average water content greater than 10 percent water, on a volume basis as total water, or is mixed with water or other wastes at any time and the resulting mixture has an annual average water content greater than 10 percent as specified in § 61.342(a), the owner or operator shall:

(i) Determine the annual waste quantity for each waste stream using the procedures specified in paragraph (b) of this section.

(ii) Determine the flow-weighted annual average benzene concentration for each waste stream using the procedures specified in paragraph (c) of this section.

(iii) Calculate the annual benzene quantity for each waste stream by multiplying the annual waste quantity of the waste stream times the flow-weighted annual average benzene.

Year	(mg/12mon)	(L/12mon)	C (Flow Weighted Annual Average Benzene Concentration)	Mg/yr	Mg/yr	Mg/yr
	Sum of (Qi x Ci)	Qt (Annual Waste Quantity)				
2021	-	188,058,672	0.0000000	0.000000	0.000262	0.000262

Exhibit 7

OGI Summary Report and Survey Form



July 13, 2021

Mr. Jay Cornelius
Manager – Environmental Control
ABC Coke
900 Huntsville Avenue
Tarrant, AL 35217

Dear Mr. Cornelius:

Think Environmental conducted an optical gas imaging (OGI) LDAR survey at Drummond Company, Inc.'s ABC Coke facility in Tarrant, AL between the dates of July 6th and July 8th, 2021 in accordance with the Supplemental Environmental Project (SEP) of the Consent Decree entered into on January 25th, 2021.

The Think Environmental OGI technician used a FLIR GF300 series infrared (IR) camera to conduct the LDAR survey. The Think Environmental LDAR technician used a ThermoFisher TVA1000B analyzer for follow-up leak quantification.

Camera Manufacturer	Model	Serial Number	Analyzer Manufacturer	Model	Serial Number
FLIR	GF300	44400863	ThermoFisher	TVA1000B	0817731141

Think Environmental surveyed all LDAR-applicable components in the OGI survey that lasted approximately twenty (20) hours and found nine (9) potential LDAR emission sources. Survey videos and supporting documentation have been provided to ABC Coke in accordance with the Supplemental Environmental Project (SEP) and SEP Completion Report requirements for submission to the Jefferson County Board of Health (JCBH) and United States Environmental Protection Agency (EPA).

Please do not hesitate to contact me with any questions or concerns.

Regards,

A handwritten signature in cursive script that reads "Jeffrey Diehl".

Jeffrey Diehl
Operations Director
Think Environmental

cc: Mr. Sam Robinson



Optical Gas Imaging (OGI) Survey Form

18196020367

Reference Number:
Form Name:
Submitter Name:
Submission Date:
Location:

20210715-18196020367
Optical Gas Imaging (OGI) Survey Form
ThinkAdmin (thinkadmin) | thinkadmin
Jul 15, 2021 10:57:58 AM CDT

GENERAL INFORMATION

Customer Information

Customer Name	Drummond
Facility Name	ABC Coke

Survey Information

OGI Technician Name	Jeff Diehl
OGI Technician Experience	3 years
Camera Type	FLIR GF300
Camera Serial Number	44400863
Survey Type	Semi-Annual
Survey Start Time	Jul 6, 2021 10:00:00 AM CDT
GPS Coordinates	latitude: altitude: longitude: [viewMap]

Weather Conditions

Ambient Temperature (F)	76
Sky Conditions	Partially Cloudy
Maximum Wind Speed (mph)	6

Camera Verification Check

Was camera verification check completed per Think Environmental procedure? Yes

LEAKS FOUND

Leaking Component

LEAKING COMPONENT

1 OF 9

Leaking Component

Leak Location

Dirty Liquor Tank

Component Type

Drain

Leak Photo



Repair attempt made?

Yes

Repair attempt successful?

Yes

Additional Information

Emissions from ground-level drain on dirty liquor tank, LDAR tag number 1426. TVA reading is 312 ppm.

LEAKING COMPONENT

2 OF 9

Leaking Component**Leak Location**

West Tar Tank

Component Type

Drain

Leak Photo**Repair attempt made?**

Yes

Repair attempt successful?

Yes

Additional Information

Drain on west tar tank, LDAR tag number 456. TVA reading is 174 ppm.

LEAKING COMPONENT

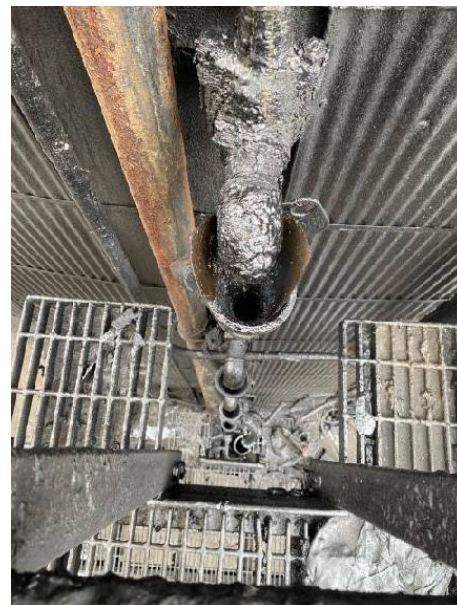
3 OF 9

Leaking Component**Leak Location**

West Tar Tank

Component Type

Drain

Leak Photo**Repair attempt made?**

Yes

Repair attempt successful?

Yes

Additional Information

Drain on west tar tank, LDAR tag number 457. TVA reading is 277 ppm.

LEAKING COMPONENT

4 OF 9

Leaking Component

Leak Location

South Exhauster Building

Component Type

Connector

Leak Photo**Repair attempt made?**

Yes

Repair attempt successful?

Yes

Additional Information

Ground-level connector outside south exhauster building, LDAR tag 930. TVA reading is 993 ppm.

LEAKING COMPONENT

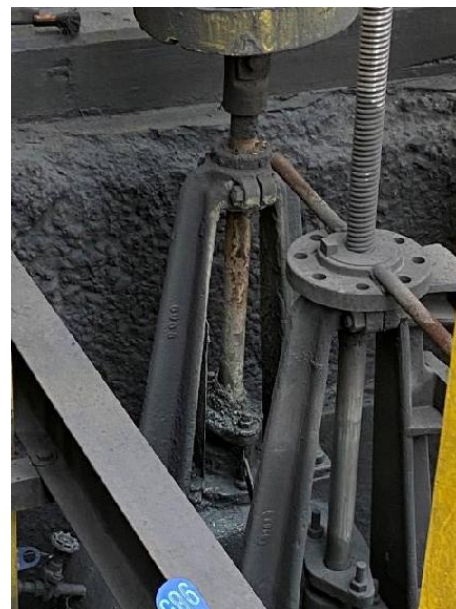
5 OF 9

Leaking Component**Leak Location**

Little Holder Pit

Component Type

Valve

Leak Photo**Repair attempt made?**

Yes

Repair attempt successful?

Yes

Additional Information

Flare valve/block valve, LDAR tag 118B. TVA reading is 200 ppm.

LEAKING COMPONENT

6 OF 9

Leaking Component**Leak Location**

South Exhauster Building

Component Type

Connector

Leak Photo**Repair attempt made?**

Yes

Repair attempt successful?

Yes

Additional Information

Connector off valve outside south exhaust building, LDAR tag 304. TVA reading is 89 ppm.

LEAKING COMPONENT

7 OF 9

Leaking Component**Leak Location**

Tar Bottom Final Cooler

Component Type

Drain

Leak Photo**Repair attempt made?**

Yes

Repair attempt successful?

Yes

Additional Information

Drain on tar bottom final cooler, LDAR tag number 98. TVA reading is 189 ppm.

LEAKING COMPONENT

8 OF 9

Leaking Component**Leak Location**

Tar Bottom Final Cooler

Component Type

Drain

Leak Photo**Repair attempt made?**

Yes

Repair attempt successful?

Yes

Additional Information

Drain on tar bottom final cooler, LDAR tag number 100. TVA reading is 226 ppm.

LEAKING COMPONENT

9 OF 9

Leaking Component**Leak Location**

Air Water Coolers

Component Type

Connector

Leak Photo

Repair attempt made?

Yes

Repair attempt successful?

Yes

Additional Information

Braided hose at connection off valve on platform off air water coolers. TVA reading is 312 ppm.

SURVEY CONCLUSION

Survey Wrap-up

Were there any deviations from the LDAR monitoring plan? No

Technician Signature



Survey End Time

Jul 8, 2021 12:30:00 PM CDT

Exhibit 8

LDAR Status Compliance Report



July 13, 2021

By Electronic Mail

Air Enforcement Branch Chief
US Environmental Protection Agency Region 4
Air Enforcement Branch
61 Forsyth Street S.W.
Atlanta, Georgia 30303

Jonathan Stanton, P.E.
Director, Environmental Health Services
Jefferson County Department of Health
1400 Sixth Avenue South
Birmingham, AL 35233

Re: Drummond ABC Coke – LDAR Compliance Status Report – Consent Decree, *United States v. Drummond Company, Inc.* Case No. 2:19-cv-00240-AKK (N.D. AL January 25, 2021); DJ # 90-5-2-1-10717.

Gentlepeople:

This LDAR Compliance Status Report has been prepared to comply with the reporting requirements outlined in the above referenced Consent Decree, Appendix A, Section 11.

- a) The number of Drummond LDAR personnel at the Facility (excluding personnel whose functions involve the non-monitoring aspects of repairing leaks) and the approximate percentage of time each such person dedicated to performing his/her LDAR functions;

There are two Drummond LDAR personnel at the Facility involved in the monitoring aspects of repairing leaks. Drummond has enlisted an LDAR contractor to perform routine weekly and monthly monitoring, so the percentage of time Drummond personnel conduct monitoring is less than 10% of their time. Their function is to perform post-repair monitoring when the LDAR contractor is unavailable to perform, although this has not been necessary since the effective date of the CD.

- b) An identification and description of any non-compliance with the requirements in Appendix A;

Drummond has been in compliance with the requirements in Appendix A.

- c) An identification of any problems encountered in complying with the requirements of this Appendix A;

No problems have been encountered.

- d) A description of any training done;

Drummond was implemented the revised Benzene Sampling Training Plan to our sample collection personnel and LDAR Training to the mechanics, technicians, and electricians that perform work on the LDAR components in the By-Products department. The BSTP includes proper sample collection and storage methods, as well as sample documentation (labels, chain-of-custody, etc.). LDAR Training addresses how to identify and preserve LDAR tags when equipment is serviced or replaced and what to do with orphaned tags.

- e) Any deviations identified in the QA/QC performed, as well as any corrective actions taken;

No deviations were identified during the QA/QC process.

- f) A summary of any LDAR Audit results received during the reporting period, including the specific identification of all deficiencies; and,

The Third Party LDAR Audit reported five (5) findings. These included 5 open-ended lines observed, three AVO leaks, and 16 components that were missing tags and not in the LDAR database. Also noted were monitoring records that did not include the certification statement and incomplete training records. The Audit also made several recommendations that might improve calibration procedures, contractor training, and tagging protocols. The specifics of the audit findings are attached as Appendix A.

- g) The status of all actions under any CAP that was submitted during the reporting period, unless the CAP was submitted less than one month before the compliance status report.

The actions specified in the June 22, 2021 CAP prepared in response to the findings of the June 22, 2021 Audit have been completed.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true,

EPA Air Chief
Jonathan Stanton
Page 3

accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Jay Cornelius
Manager, Environmental Control
Drummond Company, Inc.

cc: Robert Caplan (USEPA)
EES Case Management Unit, eescdcopy.enrd@usdoj.gov
Steve Rieck (USEPA)
Nicole Radford (USEPA)
Andrew Ingersoll (DOJ)
Wade Merritt (JCDH)
Jason Howanitz (JCDH)
Richard Davis (Drummond)
Blake Andrews (Drummond)
Curt Jones (Drummond)
Robert B. McKinstry, Jr. (Drummond)

EPA Air Chief
Jonathan Stanton
Page 4

Appendix A
2021 LDAR Compliance Audit Findings

Appendix A

**2021 Leak Detection and Repair Compliance Audit Findings
Drummond Company, Inc. - ABC Coke
Birmingham, AL**

Finding No.	Type	Regulatory Citation	Finding
1	Regulatory	40 CFR §60.482-6(a)(1): Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482-1(c) and paragraphs (d) and (e) of this section.	During comparative monitoring and walkthrough of the By-Products unit, a total of five open ended lines were observed as not having a cap, plug, or blind flange.
2	Concent Decree	Appendix A, Paragraph 14: For all Covered Equipment, at any time, including periods between required periodic monitoring, for which evidence of a potential leak is detected through audio, visual, or olfactory sensing, Drummond shall comply with all applicable LDAR regulations as if repair is required pursuant to Paragraph 6 of this Appendix A.	During comparative monitoring and walkthrough of the By-Products unit, a total of three audio, visual, or olfactory leaks were observed. One was an olfactory leak and two were visual leaks.
3	Concent Decree	Appendix A, Paragraph 23.b: Reviewing and/or verifying, as applicable, the same items that are required to be reviewed and/or verified in Paragraphs 19-20 of this Appendix A; Appendix A, Paragraph 19.b: Verify that each Covered Equipment in benzene service is clearly identified (i.e. tagged) and tagging is properly maintained. Appendix A, Paragraph 23.c: Reviewing whether any pieces of equipment that are required to be in the LDAR program are not included.	During a walkthrough of the By-Products unit, 16 components were identified as missing tags and not in LDAR database. This included five (5) valves, and 11 flanges.
4	Concent Decree	Appendix A, Paragraph 19: Beginning no later than the Effective Date, on each Day that monitoring occurs, at the end of such monitoring, Drummond shall ensure that each monitoring technician certifies that the data collected accurately represent the monitoring performed for that day by requiring the monitoring technician to sign a form that includes the following certification: "On [insert date], I reviewed the monitoring data that I collected today and to the best of my knowledge and belief, the data accurately represent the monitoring that I performed today."	Monitoring occurred for one day by two monitoring technicians (2/22/21) that did not include the required technician certification statement as per A.18. Recordkeeping started on March 24, 2021.
5	Concent Decree	By no later than 90 days after the Effective Date, Drummond shall have developed a training protocol (or, as applicable, require its contractor to develop a training protocol for the contractor's employees) and shall ensure that all LDAR Personnel conducting Method 21 monitoring have completed training on all aspects of LDAR, including this LDRP, that are relevant to the person's duties. Once per calendar year, starting in the calendar year after completion of initial training, Drummond shall ensure that refresher training is performed with respect to each employee or contractor; provided, however, that refresher training is not required if an individual's employment at the Facility ceases prior to the end of the calendar year or no longer involves duties relevant to LDAR. Drummond shall also ensure (or, as applicable, require its contractor to ensure for the contractor's employees) that new LDAR Personnel conducting Method 21 monitoring are sufficiently trained prior to any involvement (other than supervised involvement for purposes of training) in the LDAR program.	ABC Coke does not have LDAR training records on annual training relevant to their duties for By-Products staff who perform repair attempts and LDAR maintenance.